Mississippi Forage Crop Variety Trials, 2003

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Introduction

New, improved, and standard varieties of forage crops are evaluated in MAFES small-plot trials each year. Seed for the trials are obtained from commercial seed companies and state universities and tested at a number of locations in Mississippi. All entries from privately owned companies are tested on a fee basis. The Forage Crop Evaluation Committee may enter varieties of interest or proven varieties to be used as standards. This report contains data collected in 2002-03 on the performance of annual ryegrass, tall fescue, other cool-season perennial grasses, bermudagrass, and bahiagrass.

A randomized complete block design with three to four replications, depending on location, was used. Plot yield was adjusted to 95% dry matter. Visual notes on botanical composition were used to adjust total herbage yield to yield based upon the variety being evaluated unless noted in each particular table. These data were analyzed within locations and within harvest dates. The timing and number of harvests during the season varied by location because of different planting dates and growing conditions. Protein and digestibility were determined on ryegrass harvested at Newton, Mississippi, from last year's ryegrass test during the spring of 2002 (Table 6).

The summer of 2002 was generally moist with adequate rainfall throughout the state; the winter of 2002-2003 was moist (Table 1). Data presented in Tables 2-20 can be used to evaluate the relative performance of each forage variety at each location. Comparisons can be statistically evaluated by using the LSD (Least Significant Difference). The LSD value represents the amount of yield which varieties must differ by in order to determine if the differences observed were due to chance variation alone.

Table 1. Rainfall at forage variety test locations in Mississippi, 2002-03.

Month	Raymond		Newton		Starkville	
	2002	2003	2002	2003	2002	2003
	in	in	in	in	in	in
January	4.67	1.37	4.57	3.37	7.61	3.05
February	4.45	10.29	3.56	8.20	4.22	10.79
March	6.92	4.34	5.87	4.19	6.86	3.91
April	3.57	6.69	2.65	11.05	2.86	4.07
May	4.35	6.36	2.54	3.27	3.54	7.08
June	6.49	7.25	2.17	10.18	1.09	5.98
July	2.89		4.04		5.51	
August	8.72		2.21		2.63	
September	8.06		9.67		9.27	
October	10.00		10.05		6.46	
November	7.05		2.89		5.81	
December	8.53		6.36		6.33	
Total	**75.7**	**36.0**	**56.6**	**40.26**	**61.8**	**34.9**

Table 2. Evaluation of ryegrass and small grains for forage, Brown Loam Branch, Raymond, 2002-03.

Variety	Harvest date			Total
	3/18/03	4/22/03	6/10/03	yield
	lb/A	lb/A	lb/A	lb/A
BB-Mex1	3730	4036	2151	9916
Brigadier	4293	3515	2737	10545
Ed	4455	3395	2938	10788
FL x2001(new1)4xLR	3965	5371	3499	12835
FL x2002(new3)LRCT	4310	3740	3258	11308
FL x2002(DRU)LRCT	3927	3473	2481	9881
FL x2002(LA3)LRCT	4239	3728	2712	10679
FL x2002(new)4xMR	4133	4228	3033	11394
Gulf	4217	3306	2603	10126
Jackson	4556	3218	2817	10592
Joe-1	3418	3924	2944	10285
Jumbo	4080	4299	3635	12014
Marshall	4249	3800	2380	10430
ME-94	4498	3656	2427	10581
NE/FL x2002(new2)LRCT	4251	3069	2685	10005
Ore-TARX	4210	4054	2752	11015
Passerel Plus	4396	3376	2589	10361
Prine	3882	4296	2848	11026
Ribeye	4734	3150	2127	10011
SCH-5	4069	3702	2100	9871
Tam 90	4082	3261	2725	10068
TXR 2000-2(2n)	3616	3648	3084	10347
TXR 2000-T2(4n)	3575	3360	2290	9224
WD-40	4013	3656	2753	10422
WMN-97	4617	3225	2578	10420
Harrison (oat)	2876	2585	ND[1]	5461
SPI (rye)	2926	1908	ND	4834
Wintergrazer (rye)	3133	3461	ND	5593
LSD (0.05)	725	819	NS[2]	1407
Mean	4016	3551	2726	10001
CV%	12.8	16.4	29.7	10.0

Planted: 10/17/02
Soil: Loring silt loam
Fertilizer: 60-60-60 — 10/18/02 60-0-0 — 12/17/02, 3/19/03, 4/23/03

[1]ND = no data; plots had negligible growth and were not harvested.
[2]NS = not significant (P > 0.05).

Table 3. Evaluation of ryegrass and small grains for forage, Coastal Plain Branch, Newton, 2002-03.

Variety	Harvest date				Total
	2/12/03	3/10/03	4/10/03	5/15/03	yield
	lb/A	lb/A	lb/A	lb/A	lb/A
BB-Mex1	1022	1790	1999	1423	6233
Brigadier	685	1747	2081	1459	5973
Ed	927	1464	1843	1455	5689
FL x2001(new1)4xLR	1148	1669	1893	1246	5956
FL x2002 (new3)LRCT	613	1646	1853	1688	5800
FL x2002(DRU) LRCT	988	1852	1934	1459	6233
FL x2002(LA3)LRCT	1229	1663	1856	1532	6280
FL x2002(new)4xMR	981	1714	1966	1988	6650
Gulf	787	1551	2038	1551	5909
Jackson	1270	1293	1839	1685	6087
Joe-1	1297	1685	1775	1511	6268
Jumbo	1244	1788	1860	1677	6570
Marshall	844	1485	1987	1409	5725
ME-94	1298	1423	1888	1427	6036
NE/FL x2002(new2)LRCT	1002	1568	1874	1343	5787
Ore-TARX	1291	1583	1902	1486	6263
Passerel Plus	989	1482	1858	1236	5565
Prine	507	1354	1924	1323	5108
Ribeye	1506	1701	1954	1545	6705
SCH-5	1306	1698	1836	1537	6378
Tam 90	1015	1778	1924	1410	6126
TXR 2000-2(2n)	1165	1593	1836	1400	5994
TXR 2000-T2(4n)	953	1621	2026	1519	6118
WD-40	1156	1740	2041	1631	6568
WMN-97	1241	1676	1975	1566	6458
Harrison (oat)	1022	1866	2069	1428	6385
SPI (rye)	1101	1697	1768	1389	5955
Wintergrazer (rye)	1126	1823	2001	1677	6626
LSD (0.05)	607	376	291	335	770
Mean	1061	1641	1921	1500	6123
CV %	35.0	14.0	9.2	15.7	7.7

Planted: 10/22/2002
Soil: Prentiss fine sandy loam
Fertilizer: 65-65-65 — 10/22/02 68-0-0 — 2/13/03, 3/10/03, 4/10/03

Table 4. Evaluation of ryegrass and small grains for forage, Mississippi State, Starkville, 2002-03.

Variety	Harvest date						Total	Heading
	11/22/02	1/08/03	3/10/03	4/03/03	5/06/03	6/23/03	yield	5/06/03
	lb/A	lb/A	lb/A	lb/A	lb/A	lb/A	lb/A	%
BB-Mex1	825	481	954	1679	2264	488	6391	60
Brigadier	914	436	891	1667	2137	333	6377	76
Ed	1118	298	558	1309	2517	382	6182	48
FL x2001(new1)4xLR	703	291	633	1486	2223	400	5734	50
FL x2002 (new3)LRCT	633	223	966	1862	2547	454	6784	44
FL x2002(DRU) LRCT	633	333	712	1638	2669	472	6456	66
FL x2002(LA3)LRCT	595	307	890	1829	2300	482	6402	55
FL x2002(new)4xMR	838	495	1249	1613	2201	380	6777	64
Gulf	873	758	1300	1749	2082	317	7079	82
Jackson	920	288	543	1332	2950	365	6397	64
Joe-1	721	362	829	1279	2396	367	5953	34
Jumbo	938	339	541	1320	2423	420	5983	39
Marshall	1029	533	596	1899	2480	492	7028	60
ME-94	971	259	670	1716	2611	464	6691	52
NE/FL x2002(new2)LRCT	655	295	871	1682	2318	409	6230	45
Ore-TARX	1207	649	1137	1822	1834	438	7088	42
Passerel Plus	919	352	665	1745	2425	483	6589	35
Prine	747	470	1016	1377	2338	601	6550	49
Ribeye	973	463	872	1759	2107	453	6627	44
SCH-5	802	415	966	1721	2256	372	6532	65
Tam 90	933	447	835	1745	2200	323	6483	40
TXR 2000-2(2n)	886	184	387	1661	2357	373	5848	45
TXR 2000-T2(4n)	602	219	752	1669	2685	277	6206	51
WD-40	1021	484	828	1702	2187	209	6432	84
WMN-97	871	275	379	1850	2619	333	6326	45
Harrison (oat)	593	140	653	1843	1284	466	4978	100
SPI (rye)	204	199	1757	1230	1679	537	5606	100
Wintergrazer (rye)	287	235	1173	1286	1454	407	4842	100
LSD (0.05)	295	231	312	367	581	174	1007	18
Mean	802	368	843	1620	2270	410	6313	59
CV %	26.0	44.3	26.2	16.1	18.1	30.2	11.3	29.3

Planted: 10/09/2002
Soil: Marietta loam
Fertilizer: 60-20-40 — 10/18/02 68-0-0 — 11/26/02, 1/14/03, 3/24/03, 4/23/03

Table 5. Dry matter yield of ryegrass and small grains at three Mississippi locations, 2002-03.

Variety	Raymond	Newton	Starkville	Average
	lb/A	lb/A	lb/A	lb/A
BB-Mex1	9916	6233	6391	7513
Brigadier	10545	5973	6377	7632
Ed	10788	5689	6182	7553
FL x2001(new1)4xLR	12835	5956	5734	8175
FL x2002(new3)LRCT	11308	5800	6784	7964
FL x2002(DRU)LRCT	9881	6233	6456	7523
FL x2002(LA3)LRCT	10679	6280	6402	7787
FL x2002(new)4xMR	11394	6650	6777	8274
Gulf	10126	5909	7079	7705
Jackson	10592	6087	6397	7692
Joe-1	10285	6268	5953	7502
Jumbo	12014	6570	5983	8189
Marshall	10430	5725	7028	7728
ME-94	10581	6036	6691	7769
NE/FL x2002(new2)LRCT	10005	5787	6230	7341
Ore-TARX	11015	6263	7088	8122
Passerel Plus	10361	5565	6589	7505
Prine	11026	5108	6550	7561
Ribeye	10011	6705	6627	7781
SCH-5	9871	6378	6532	7594
Tam 90	10068	6126	6483	7559
TXR 2000-2(2n)	10347	5994	5848	7396
TXR 2000-T2(4n)	9224	6118	6206	7183
WD-40	10422	6568	6432	7807
WMN-97	10420	6458	6326	7735
Harrison (oat)	5461	6385	4978	5608
SPI (rye)	4834	5955	5606	5465
Wintergrazer (rye)	5593	6626	4842	5687
LSD (0.05)	1407	770	1007	1061
Mean	10001	6123	6313	7479
CV%	10.0	7.7	11.3	10.7

Table 6. Percentage crude protein (CP), fiber (ADF & NDF), and in-vitro total digestibility (IVTD) of ryegrass samples harvested at two dates, 2002.[1]

Variety	Supplier	3/27/02 Cutting					4/30/02 Cutting				
		Yield	CP	NDF	ADF	IVTD	Yield	CP	NDF	ADF	IVTD
		lb/A	%	%	%	%	lb/A	%	%	%	%
01-Oretar	OregroSeed	2068	21.4	50.1	29.1	84.2	1438	23.5	51.8	30.4	80.7
Abundant	DLF-Jenks	1925	20.9	49.6	28.8	84.0	1691	22.8	51.0	30.1	80.6
BB-Mex1	Barenburg	1898	21.2	48.5	27.8	84.8	1647	23.0	51.1	29.4	81.0
BigDaddy	SouthernStates	1768	21.4	51.1	29.4	82.9	1487	21.4	51.5	29.2	81.2
BridgadierD	EastTexasSeed	2097	20.2	49.2	27.5	84.8	1544	21.9	50.9	29.1	80.6
EdArg	SmithSeed	2034	20.9	51.2	28.9	83.8	1445	21.8	54.8	31.6	79.1
FeastII	AmpacSeedCo	1663	22.6	46.4	26.2	86.1	1760	21.4	52.7	30.0	80.9
FL1OK2001	UFlorida	2133	20.2	48.6	26.7	85.0	1538	22.5	51.2	29.0	80.9
FLine2001	UFlorida	2081	19.8	49.6	27.6	84.3	1502	22.1	51.6	29.7	80.7
FLx2001new	UFlorida	1922	20.7	51.0	29.2	83.7	1556	23.1	53.0	30.7	80.1
FLX2001new1	UFlorida	1848	21.1	49.9	28.6	83.7	1552	22.0	52.4	30.1	80.3
ItalianB001	AgResearch	1825	20.9	49.7	28.8	83.0	1326	23.3	51.2	30.0	80.6
ItalianB4432	AgResearch	1556	22.6	46.7	26.8	85.4	1496	22.0	51.7	29.2	80.8
Jackson	WaxSeed	2289	18.9	50.9	28.5	83.7	1345	22.6	51.3	29.9	80.6
Jivet	DLF-Jenks	1932	22.0	48.1	27.9	84.6	1800	23.6	50.3	28.8	82.2
Jumbo	SmithSeed	1911	20.5	49.1	28.1	84.0	1681	23.1	51.1	29.9	80.3
King	LewisSeedCo	2010	19.7	51.6	29.1	83.1	1503	21.1	54.4	31.1	79.3
Lonestar	GrasslandOregon	1910	20.6	49.0	27.8	84.0	1468	20.5	55.4	32.6	77.9
Marshall	WaxSeed	2426	20.1	48.0	26.3	86.2	1999	21.2	53.1	29.9	80.7
ME94	WaxSeed	2047	20.0	49.7	28.2	83.9	1557	22.7	50.4	29.4	81.2
PasserelPlus	Pennington	2028	20.7	48.2	26.8	85.7	1814	20.5	55.1	31.7	78.6
Plainview	GaryFrum	1956	21.9	46.3	26.1	85.5	1873	21.6	51.3	29.0	81.6
Prine	EastTexasSeed	1881	21.6	49.6	28.0	84.5	1574	21.8	52.6	30.1	81.3
Ribeye	Barenburg	1887	19.6	49.2	27.5	85.1	1717	21.1	54.2	31.0	79.3
Rio	Proseeds	1865	17.8	53.8	30.4	81.1	1734	20.9	52.5	30.0	81.0
Rustmaster	DLF-Jenks	2100	19.8	49.7	27.6	84.3	1551	19.9	54.2	30.6	78.0
SCH-5	OregroSeed	2066	19.9	50.0	28.3	83.6	1551	21.0	53.2	31.0	79.4
Stampede	ProSeeds	2130	19.3	50.8	28.3	83.8	1633	20.0	56.4	31.9	78.3
Tam90	LRNelson	1872	20.3	50.0	28.2	84.1	1456	20.2	54.3	30.8	79.2
TXR2000-2	LRNelson	1869	21.5	46.8	26.0	86.0	1854	20.0	55.6	31.2	79.6
TXR2001-10	LRNelson	2059	19.3	49.9	28.4	83.7	1641	21.5	53.3	30.5	79.3
TXR2001-8	LRNelson	1914	22.1	46.9	26.0	86.2	1896	21.0	52.6	29.8	80.0
Winterstar	AmpacSeedCo	1836	20.9	49.9	28.1	84.6	1670	22.2	52.5	29.6	80.9
WMN97	WaxSeed	2232	20.3	49.5	27.6	84.7	1730	23.2	49.9	28.2	82.5
Mean		1971	20.6	49.4	27.9	84.4	1618	21.7	52.6	30.1	80.3
LSD (0.05)[2]		231	1.9	4.5	3.0	2.7	257	2.5	5.0	3.2	3.3
CV%		7	5.8	5.6	6.5	2.0	10	7.1	5.9	6.6	2.5

Planted: 9/26/01
Soil: Prentiss fine sandy loam
Fertilizer: 65-65-65 @ 100 lb/A — 10/09/02
Nitrogen (34-0-0) @ 200 lb/A — 11/27/02, 2/04/02, 3/28/02, 4/23/02
Herbicide: 1 qt/A Weedmaster — 1/10/02

[1]Ryegrass samples (DM basis) were evaluated by near infrared spectroscopy at the Forage Analysis Laboratory in Franklinton, Louisiana.
[2]Varieties that differ by more than the LSD are significantly different (P<0.05).

Table 7. Annual dry matter yield of tall fescue varieties, Brown Loam Branch, Raymond, 2000-03.

Variety	2000-01	2001-02	2002-03	Average
	lb/A	lb/A	lb/A	lb/A
AGRFA 103	4174	8079	6570	6274
AGRFA 110	4673	7891	6567	6377
Bronson	5086	8539	3627	5751
CAS EA 79	4889	9528	6916	7111
GA 001 542	5060	11518	6264	7614
GA 002 542	4281	10160	7643	7361
GA 003 542	4468	8256	6151	6292
GA 5 FI[1]	5236	9683	7271	7397
GA 5 MaxQ	4885	9607	6512	7001
Hoedown	5069	8804	5996	6623
Jessup FI[1]	4184	7844	6839	6289
Jessup MaxQ	4891	9034	6903	6943
Kentucky 31 FI[1]	4687	8508	6997	6731
Quincy	4351	8730	7167	6749
Stag	5199	9702	6162	7021
WVPB 97-C-1	4025	9698	7739	7154
WVPB 99KSM	4552	9493	5880	6642
LSD (0.05)	1392	1963	1907	1754
Mean	4689	9122	6542	6784
CV %	14	15	20	16

Soil : Loring silt loam
Fertilizer: 65-0-0 — 10/12/00; 65-0-0 — 3/27/01; 60-60-60 — 10/18/01; 60-0-0 — 12/19/01, 4/22/02; 60-60-60 — 10/23/02; 60-0-0 — 3/21/03
Herbicide: None
[1]FI = Fungus infected with toxic Neotyphodium coenophialium.

Table 8. Dry matter yield of tall fescue varieties, Coastal Plain Branch, Newton, 2002-03.

Variety	Harvest date				Total	2-year
	12/06/02	3/21/03	4/11/03	5/15/03	yield	average
	lb/A	lb/A	lb/A	lb/A	lb/A	lb/A
AGRFA 103	258	2219	574	0	3051	4379
AGRFA 110	156	2340	498	0	2994	4339
Bronson	686	1703	1373	1892	5653	5807
CAS EA 79	878	1846	1308	1882	5914	5950
GA 001 542	1202	2014	1308	1666	6190	6405
GA 002 542	805	2058	1057	1840	5760	5956
GA 003 542	1058	1917	1328	1897	6200	6358
GA 5 FI[1]	959	1780	1391	1774	5903	6075
GA 5 MaxQ	942	1897	1354	1744	5936	6294
Hoedown	812	1721	1500	2052	6085	6041
Jessup FI[1]	742	1728	1364	1776	5810	6112
Jessup MaxQ	1162	1826	1462	1939	6388	6427
Kentucky 31 FI[1]	996	1407	1605	2249	6257	5937
Quincy	853	1625	1408	1835	5721	5798
Stag	1256	2050	1497	2102	6905	6111
WVPB 97-C-1	1072	1398	1474	1894	5838	5599
WVPB 99KSM	968	1645	1578	2082	6273	5524
LSD (0.05)	331	341	178	275	708	870
Mean	871	1834	1299	1684	5687	5824
CV %	23.0	11.2	8.3	9.8	7.5	7.2

Planted: 10/16/00
Soil: Prentiss fine sandy loam
Fertilizer: 65-65-65 — 10/22/02; 68-0-0 — 2/13/03, 3/10/03, 4/10/03
[1]FI = Fungus infected with toxic Neotyphodium coenophialium.

Table 9. Dry matter yield of tall fescue varieties, Mississippi State, Starkville, 2002-03.

Variety	Harvest date				Total	Jointing	Heading
	11/24/02	3/28/03	4/21/03	6/09/03	yield	3-28-03	6-02-03
	lb/A	lb/A	lb/A	lb/A	lb/A	%	%
AGRFA 103	995	1678	869	1720	5263	65	35
AGRFA 110	536	1484	819	1648	4487	54	32
Bronson	1193	1161	1250	1359	4963	18	22
CAS EA 79	1572	1672	1348	1381	5973	39	30
GA 001 542	1949	1315	1091	1822	6177	39	50
GA 002 542	1817	1627	844	1765	6053	60	40
GA 003 542	2362	1317	1188	1968	6835	24	26
GA 5 FI 1	2226	1161	1335	2100	6822	13	36
GA 5 MaxQ	1347	1311	1270	1943	5871	28	41
Hoedown	1091	958	1052	1539	4640	8	16
Jessup FI 1	1211	867	1133	1341	4552	26	40
Jessup MaxQ	1639	1321	1083	1602	5644	14	39
Kentucky 31 FI 1	1760	922	1243	2024	5950	9	30
Quincy	1378	981	1241	1624	5225	20	38
Stag	1345	1347	1354	1672	5719	26	26
WVPB 97-C-1	1679	776	1143	1966	5563	9	14
WVPB 99KSM	1217	1020	1500	1544	5280	9	16
LSD (0.05)	812	384	266	297	1211	16	15
Mean	1489	1230	1163	1705	5589	27	31
CV %	38.3	22	16.1	12.2	15.2	40.2	33.5

Soil: Marietta Loam
Planted: 10/23/00
Fertilizer: 400 lb/A 15-5-10 — 10/04/02
150 lb/A 15-5-10 — 11/26/02
150 lb/A 32-0-0 (N-Sol) — 01/15/03
200 lb/A 34-0-0 — 03/29/03, 4-21-03
Herbicide: 2-4D at 1 pt/A on 01/15/03 with N-Sol
[1]FI = Fungus infected with toxic Neotyphodium coenophialium.

Table 10. Dry matter yield of tall fescue varieties at three Mississippi locations, 2002-03.

Variety	Raymond	Newton	Starkville	Average
	lb/A	lb/A	lb/A	lb/A
AGRFA 103	4174	3051	5263	4163
AGRFA 110	4673	2994	4487	4051
Bronson	5086	5653	4963	5234
CAS EA 79	4889	5914	5973	5592
GA 001 542	5060	6190	6177	5809
GA 002 542	4281	5760	6053	5365
GA 003 542	4468	6200	6835	5834
GA 5 FI 1	5236	5903	6822	5987
GA 5 MaxQ	4885	5936	5871	5564
Hoedown	5069	6085	4640	5265
Jessup FI 1	4184	5810	4552	4849
Jessup MaxQ	4891	6388	5644	5641
Kentucky 31 FI 1	4687	6257	5950	5631
Quincy	4351	5721	5225	5059
Stag	5199	6905	5719	5941
WVPB 97-C-1	4025	5838	5563	5142
WVPB 99KSM	4552	6273	5280	5368
LSD (0.05)	1392	708	1211	1104
Mean	4689	5687	5589	5322
CV %	14	7.5	15.2	12.2

[1]FI = Fungus infected with toxic Neotyphodium coenophialium.

Table 11. Dry matter yield of cool-season grasses, Mississippi State, Starkville, 2002-2003.

Species/Variety	Harvest date				Total yield	Heading 4/21/03	Stand 4/21/03
	11/24/03	3/28/03	4/21/03	6/09/03			
	lb/A	lb/A	lb/A	lb/A	lb/A	%	%
Brome Prairiegrass							
AGR MW 101	0	617	984	1889	3491	100	68
D 5633	0	561	855	1573	2988	100	39
M 5632	0	237	574	1584	2395	100	49
G. Matua	0	316	1049	1999	3364	100	80
Lupreme	0	700	999	2218	3917	100	68
Matua	0	415	1050	2502	3967	100	83
Stocker	0	534	1072	2030	3637	100	72
Gala	0	461	741	1296	2498	75	42
Reed Canarygrass							
AGR PA 101	987	592	817	1645	4041	100	42
Orchardgrass							
Quantum	498	697	406	1246	2848	20	47
Tall Fescue							
Barcel	934	606	1031	2204	4774	34	88
R 4663	1129	2196	662	1627	5614	2	87
Q 4508	1380	1895	881	2080	6236	0	94
LSD (0.05)	311	453	520	1138	1969	23	34
Mean	349	731	869	1858	3808	73	66
CV %	59.6	41.5	10.1	41.0	34.6	21.3	34.4

Soil: Marietta Loam
Planted: 10/23/00
Fertilizer: 400 lb/A 15-5-10 — 10/04/02; 150 lb/A — 11/26/02
150 lb/A 32-0-0 (N-Sol) — 01/15/03; 200 lb/A 34-0-0 — 03/29/03, 4-21-03
Herbicide: 2-4D at 1 pt/A on 01/15/03 with N-Sol
Seed sources: Wrightson Research — Tall Fescue R4663 and Q4508; Brome/Prairiegrass M5632 and D5633.
Barenberg — Tall Fescue Barcel; Brome/Prairiegrass Lupreme, Gala, and Stocker.
AgResearch — Reed Canarygrass AGR PA101; Brome/Prairiegrass AGR W101.

Table 12. Bermudagrass yield at the Coastal Plain Branch, Newton, 2002.

Variety	Harvest date				Total yield	8-year average[1]
	5/16/02	6/25/02	7/23/02	9/20/02		
	lb/A	lb/A	lb/A	lb/A	lb/A	lb/A
Alicia	2767	2256	2263	1614	8901	9021
Coastal	2768	2709	2573	1773	9823	8537
Common	899	1397	1977	1162	5435	5625
Grazer	1193	1450	1724	1108	5474	5184
Hardie	2224	1331	2200	1265	7019	6066
Landcaster	2016	1226	2095	1082	6418	5050
Lott	1853	1995	2120	1396	7363	7258
Murphy	3181	1877	2133	1482	8673	7718
Poplarville	2366	1419	2071	1140	6996	6349
Sumrall 007	1587	2330	2519	1636	8072	8414
Tifton 44	2828	2830	2550	1779	9987	9655
Tifton 78	2146	2608	2415	1836	9005	9117
Tifton 78 WH	1906	2510	2397	1866	8679	8877
Tifton 85	2733	2849	2938	2111	10630	9300
LSD (0.05)	640	390	287	335	1026	
Mean	2176	2056	2284	1518	8034	7583
CV %	21	13	9	15	9	

Soil: Prentiss fine sandy loam
Planted: 04/19/94
Fertilizer: 65-65-65 — 03/08/02; 68-0-0 — 05/17/02, 06/25/02, 08/02/02
Herbicides: Diuron @ 1qt/A and Weedmaster @ 1.5 pt/A on 4/12/02
[1]Lott and Sumrall 007 were not planted until April 1997. Table 12 presents a 5-year average for these grasses.

Table 13. Bermudagrass yield at Mississippi State, Starkville, 2002.

Variety	Harvest date				Total yield	2-year average
	5/15/02	6/25/02	7/25/02	9/11/02		
	lb/A	lb/A	lb/A	lb/A	lb/A	lb/A
Alicia	3228	1629	3356	3284	11498	12198
Coastal	2802	1188	2787	3147	9925	9334
Common	1901	578	1552	1358	5389	8298
McDonald	2839	1389	2651	2889	9758	11128
Murphy	1473	607	704	1040	3824	4520
Russell	3003	1474	3083	3517	11078	11967
Sumrall 007	2339	1276	2509	3317	9442	11639
Tanberg	2523	1950	2364	2897	9734	11428
Tifton 44	2481	1055	2640	2633	8806	9620
Tifton 78	2274	888	2230	1904	7296	8090
Tifton 78WH	2328	935	1963	1588	6713	7842
Tifton 85	2016	854	1884	1334	6088	7552
LSD (0.05)	1058	687	1111	1122	3112	2772
Mean	2434	1144	2310	2409	8297	9468
CV %	30	42	33	32	26	21

Planted: Russell — 4/27/95; Tanberg, Tifton 85, and McDonald — 6/19/97; Sumrall 007 — 6/17/96; All others — 6/7/93
Soil: Marietta Loam
Fertilizer: 350 lb/A 15-5-10 — 4-16-01; 400 lb/A 15-5-10 Rainbow on 9-10-01; 150 lb/A 34-0-0 — 6-19-01, 7-24-01
Herbicide: None

Table 14. Yield of bermudagrass planted from green clippings in 2001, Mississippi State, Starkville, 2002.

Variety	Harvest date				Total yield	2-year average
	5/15/02	7/01/02	7/30/02	9/15/02		
	lb/A	lb/A	lb/A	lb/A	lb/A	lb/A
BY101	2358	3100	541	3295	9293	8434
Coastal	974	2293	1813	3229	8309	4222
Dixie I	2235	2640	929	3678	9481	8008
Dixie II	1797	3074	499	2841	8211	6728
Sumrall 007	2635	3311	1339	3736	11021	8258
Tifton 44	1554	1603	1328	2540	7025	3888
World Feeder	2031	2208	231	2327	6797	3932
LSD (0.05)	1090	1271	476	1881	3916	2903
Mean	1941	2604	954	3092	8591	6210
CV %	37.8	32.8	52.6	40.9	30.7	32

Soil: Marietta Loam
Planted: 6/10/2001
Fertilizer: 400 lb/A 15-5-10 — 4/16/02 , 7/31/02; 150 lb/A 34-0-0 — 5/16/02, 7/01/02
Herbicide: 1 qt/A Grazon P+D — 4/18/02; Burned with fire — 3/01/02

Table 15. Dry matter yield of seeded bermudagrass planted in 2001, Mississippi State, Starkville, 2002.

Variety	Stand	Yield				Total	2-year
	7/01/02	5/15/02	7/01/02	7/30/02	8/16 /02	yield	avg.
	%	lb/A	lb/A	lb/A	lb/A	lb/A	lb/A
Cheyenne	88	1379	1199	1060	1402	5040	5949
Common-K	94	1844	1447	1127	1638	6055	6413
Common-S	96	1507	1381	652	1553	5094	6043
DLF-BERI	74	761	763	602	784	2911	2177
Gaucho	91	955	1213	1128	1051	4346	5554
Giant	90	1805	1060	1659	1539	6063	6747
Pasto Rico	91	1477	1308	1663	1726	6174	7296
Sungrazer	91	1349	806	836	911	3902	4526
Texas Tough	91	1036	1338	1746	1768	5888	7688
Tierra Verde	81	1435	1109	1643	1826	6012	6913
LSD (0.05)	14	896	630	817	854	2460	2427
Mean	88	1355	1162	1212	1420	5149	5931
CV %	11	46	37	42	42	33	29

Planted: 5/30/01
Soil: Marietta Loam
Fertilizer: 400 lb/A 15-5-10 — 4/16/02, 7/31/02; 150 lb/A 34-0-0 — 5/16/02 , 7/01/02
Herbicide: 1 qt/A Grazon P+D — 4/18/02; Burned with fire — 3/01/02

Table 16. Bahiagrass yield at Mississippi State, Starkville, 2002.

Variety	Harvest dates					Total	2-year
	5/15/02	6/25/02	7/25/02	9/4/02	11/01/02	yield	avg.
	lb/A	lb/A	lb/A	lb/A	lb/A	lb/A	lb/A
Pensacola	1636	2008	1995	1576	1883	9098	10083
Tifton 9	1805	2770	2350	1767	1836	10258	11986
LSD (0.05)	671	1045	590	214	658	708	1634
Mean	1721	2389	2172	1671	1860	9813	11102
CV %	17.3	19.4	12.1	5.7	15.7	3.2	5

Planted: 5/25/94
Soil: Marietta Loam
Herbicide: 1 qt/A Grazon P+D — 4/10/02; Burned with fire — 3/01/01
Fertilizer: 400 lb 15-5-10 — 4/16/02; 200 lb 34-0-0 — 5/16/02, 6/26/02, 7/27/02

Table 17. Dry matter yield of gamagrass, Brown Loam Branch, Raymond, 2002.

Variety	Harvest date			Annual
	5/15/02	7/2/02	9/3/02	total
	lb/A	lb/A	lb/A	lb/A
Jackson	4615	8345	10510	23469
Highlander	4135	6808	8350	19293
Pete	3205	5369	7617	16192
LSD (0.05)	806	2019	NS[1]	NS
Mean	3985	6840	8826	19651
CV%	8.9	13.0	29.2	18.6

Planted: May 2001
Soil type: Loring silt loam
Fertilizer: 50-50-50 — 3/13/02; 60-0-0 — 5/15/02, 7/2/02
Herbicide: None
[1]NS, not significant (P > 0.05)

Table 18. Yield of eastern gamagrass and corn for silage, Coastal Plain Branch, Newton, 2002.[1]

Variety	Harvest dates			Total yield
	5/21/02	7/12/02	10/02/02	
	tons/A	tons/A	tons/A	tons/A
Eastern Gamagrass	13.95	5.89	7.77	27.61
Corn Variety McNair 508	—	11.75	—	11.75
Corn Variety N91-R9	—	14.02	—	14.02

[1]Yield converted to 35% DM.

Table 19. Nutritional analysis of eastern gamagrass and corn for silage, Coastal Plain Branch, Newton, 2002.[1]

Variety	Crude protein	ADF	NDF	TDN
	%	%	%	%
Eastern Gamagrass	10.12	36.71	68.12	55.17
Corn Variety McNair 508	9.14	31.12	52.87	64.50
Corn Variety N91-R9	8.99	27.61	64.01	67.13

[1]Nutritional analysis conducted at 100% DM.

Table 20. Yield of eastern gamagrass, Mississippi State, Starkville, 2002.

Selection	Harvest date			Total yield	3-year average
	5/14/2002	7/10/2002	9/04/2002		
	lb/A	lb/A	lb/A	lb/A	lb/A
Highlander	6052	2950	2990	11993	11457
9058543	4491	2434	3610	10535	10720
9062708	3968	1617	3673	9258	8320
9062714	3493	2258	4392	10143	8324
LSD (0.05)	3062	2213	1902	4974	3281
Mean	4501	1315	3663	10482	9612
CV %	35.0	47.8	26.0	23.7	26.4

Planted: 1994
Soil: Marietta loam
Fertilizer: 350 lb 15-5-10 — 4/18/02; 150 lb 34-0-0 — 5/15/02, 7/11/02
Herbicide: None

Seed Sources

Annual Ryegrass

BB-Mex1	Barenburg	**Joe-1**	OreGro Seeds	**Tam 90**	Texas A&M Univ.
Brigadier	East Texas Seed	**Jumbo**	Smith Seed	**TXR 2000-2(2n)**	Texas A&M Univ.
Ed	Smith Seed	**Marshall**	Wax seed	**TXR 2000-T2(4n)**	Texas A&M Univ.
FL x2001(new1)4xLR	Univ. of Florida	**ME-94**	Wax Seed	**WD-40**	OreGro Seeds
FL x2002 (new3)LRCT	Univ. of Florida	**NE/FL LRCT**	Univ. of Florida	**WMN-97**	Wax Seed
FL x2002(DRU) LRCT	Univ. of Florida	**Ore-TARX**	OreGro Seeds	**Harrison (oat)**	Arkansas County Seed
FL x2002(LA3)LRCT	Univ. of Florida	**Passerel Plus**	Pennington	**SPI (rye)**	Pennington Seed
FL x2002(new)4xMR	Univ. of Florida	**Prine**	East Texas Seed	**Wintergrazer (rye)**	Pennington Seed
Gulf	Commercial Seed	**Ribeye**	Barenburg		
Jackson	Wax Seed	**SCH-5**	OreGro Seeds		

Tall Fescue

AGRFA 103	AgResearch Limited	**Ga 002 542**	University of Georgia	**Kentucky 31 FI**	University of Georgia
AGRFA 110	AgResearch Limited	**Ga 003 542**	University of Georgia	**Q 4508**	Wrightson Research
Barcel	Barenburg	**GA 5 FI**	University of Georgia	**Quincy**	Willamette Valley Plant Breeders
BarFa1004	Barenburg	**Ga 5 MaxQ**	Pennington Seed	**R 4663**	Wrightson Research
Bronson	Ampac Seed	**Hoedown**	Jenks Seed Connections	**Stag**	ProSeeds Marketing
CAS EA 79	Cascade International	**Jessup MaxQ**	Pennington Seed	**WVPB 97-C-1**	Willamette Valley Plant Breeders
Ga 001 542	University of Georgia	**Jessup FI**	University of Georgia	**WVPB 99KSM**	Willamette Valley Plant Breeders

Orchardgrass

Quantum	Cascade International Seed Co.

Prairie Brome

AGR MW 101	AgResearch	**G. Matua**	AgResearch	**Matua**	Commercial Seed Trade
D 5633	Wrightson Research	**Lupreme**	Barenburg	**Stocker**	Barenburg
Gala	Barenburg	**M 5632**	Wrightson Research		

Reed Canarygrass

AGR PA 101	AgResearch

Seeded Bermudagrass

Common-S	Seeds West	**Pasto Rico**	KF Seeds	**Sungrazer**	KF Seeds
Common-K	KF Seeds	**Texas Tough**	East Texas Seed Co.	**Cheyenne**	Pennington Seeds
Giant	Seeds West	**Gaucho**	Cebeco International Seeds	**DLF-Beri**	DLF-Jenks
Tierra Verde	Seeds West				

Sprigged Bermudagrass

(All plants are propagated by the MSU Department of Plant and Soil Sciences. Some are released varieties; others are ecotypes or "sports" collected by individuals.)

Alicia	Mr. Greer, Edna, Texas	**Hardie**	Oklahoma	**Sumrall 007**	Mr. Sumrall, Monticello, Mississippi
BY 101	Mr. Pruitt, Eupora, Mississippi	**Lancaster**	Mr. Lancaster, Rienzi, Mississippi	**Tanberg**	Mr. Tanberg, Texas
Coastal	USDA - Tifton, Georgia	**Lott**	Mr. Lott, Holcomb, Mississippi	**Tifton 85**	USDA - Tifton, Georgia
Common	Commercial Seed	**McDonald**	Mr. McDonald, Carthage, Mississippi	**Tifton 78 WH**	MAFES and USDA - Tifton, Georgia
Dixie I, Dixie II	Mr. McDonald, Carthage, Mississippi	**Murphy**	Mr. Murphy, Carthage, Mississippi	**Tifton 78**	USDA - Tifton, Georgia
Grazer	Louisiana State University and USDA - Tifton, Georgia	**Poplarville**	MAFES South Mississippi Branch	**World Feeder**	Oklahoma
		Russell	Auburn University		

Bahiagrass

Pensacola	Commercial Seed	**Tifton 9**	Pennington

Eastern Gamagrass

Eastern Gamagrass Selections	USDA - Coffeeville Plant Material Center